

# LOS RIOS COMMUNITY COLLEGE DISTRICT

PURCHASING: (916) 568-3071 • FAX: (916) 568-3145  
 ACCOUNTING OPS: (916) 568-3065 • FAX: (916) 286-3636

**PURCHASE ORDER NO 0001098002**

PLEASE SEE REVERSE SIDE FOR TERMS AND CONDITIONS.

<b>Date</b> 05/11/2018	<b>Revision</b>	<b>Page</b> 1
<b>Payment Terms</b> NET 30	<b>Freight Terms</b> Shipping Point	<b>Ship Via</b> Best Metho
<b>Reference:</b> 1011349 MITCHINERB SHEWMAKERN04		<b>Location / Dept</b> CYPH234 CTE

**Supplier:** 0000040457  
 ANATOMAGE INC  
 303 ALMADEN BLVD #700  
 SAN JOSE CA 95110

**Phone:** (408) 885-1474  
**Fax:** (408) 295-9786

**email:** naseem.heydari@anatomage.com

**Ship To:** FOLSOM LAKE COLLEGE  
 RECEIVING  
 10 COLLEGE PARKWAY  
 FOLSOM CA 95630-6798  
 United States

**Bill To:** 1919 Spanos Court  
 Sacramento CA 95825-3981  
 United States

Tax Exempt? N

Line-Sch	Item/Description	Quantity UOM	PO Price	Extended Amt	Due Date
1- 1	ANATOMAGE TABLE CONVERTIBLE W/STAND-UP OPTION + DIGITAL LIBRARY	1.00 EA	68,016.00	68,016.00	04/20/2018
2- 1	SHIPPING AND HANDLING	1.00 EA	1,920.00	1,920.00	05/11/2018

PRICE INCLUDES SPECIALTY DISCOUNTED RATE.

INCLUDED WITH TABLE: INVIVO5 3D IMAGING SOFTWARE WITH MEDICAL DESIGN STUDIO, 1ST YEAR WARRANTY WITH SOFTWARE UPGRADE AND TECH SUPPORT, ON-SITE TRAINING, AND HARD COVER TABLE COVER.

<b>Sub Total Amount</b>	69,936.00
<b>Sales Tax Amount</b>	5,271.24
<b>Total PO Amount</b>	75,207.24

BU	Acct	Fd	Org	Prog	Sub	Proj	Amount	BYear
GENFD	6490	12	FL.VI.ALHT	12250	00000	482N	75,207.24	2018

0001011349KIRKLINK04-APR-2018

Verification of this purchase order can be made using the Los Rios Community College District web site listed below. If you have any questions, please contact the Purchasing Office at (916)568-3071.

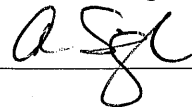
<http://www.losrios.edu/purchasing/povalidation>

Addition to Terms and Conditions/Revised 01/26/18

23. CERTIFICATION: CONTRACTOR warrants that it is not debarred or suspended, proposed for debarment or declared ineligible for award of contracts by any Federal, State or local Agency.

All shipments, invoices, and correspondence must be identified with our Purchase Order Number. Overshipments will not be accepted unless authorized by Buyer prior to shipment.

**Authorized Signature**



Notice to vendor: You are responsible for delivering goods and delivery documents to the Receiving Department at the site. Failure to do so will delay payment processing. Vendor is responsible for obtaining verification of delivery by authorized Receiving Room personnel. Receipt of goods by other parties and failure to obtain authorized signatures may also delay payment. NOTE: PAYMENT TERMS NET 30  
 MATERIAL SAFETY DATA SHEETS (MSDS) must be provided with the delivery of product as required by law.

## LOS RIOS COMMUNITY COLLEGE DISTRICT

American River College • Cosumnes River College • Folsom Lake College • Sacramento City College

### PURCHASE ORDER TERMS AND CONDITIONS

1. **APPLICABLE LAW:** The contract resulting from this order shall be governed by the laws of the State of California
2. **COMPLETION OF ORDERS:** LRCCD reserves the right to withhold payment until order is completed.
3. **DISCOUNTS:** Please show cash payment discount offered on your invoice in connection with any discount offered, time will be computed from date of delivery of the supplies or equipment, or from date correct invoices are received in the office specified by LRCCD if the latter date is later than the date of delivery. Payment is deemed to be made for the purpose of earning discount, on the date payment is mailed or on behalf of LRCCD.
4. **INVOICES:** Invoices shall be prepared and submitted in duplicate unless otherwise specified. Invoices shall contain Purchase order number, date, description of items, sizes and quantities, unit prices, extended totals, place and date of delivery. Invoices or vouchers not on printed bill heads shall be signed by the CONTRACTOR or person furnishing the supplies or services. Every invoice shall be properly itemized. If LRCCD has not received billing for product or services within a one year period LRCCD will not be held responsible for satisfying the debt.
5. **CHANGES:** No change or modification in terms, quantities, or specifications may be made without express authorization in writing from the LRCCD Purchasing Office and signed by the parties hereto, and no oral understanding or agreement not incorporated herein shall be binding on any of the parties hereto. If unit cost of any item exceeds the amount shown by 10% or \$250.00 whichever is less do not ship. Contact LRCCD Purchasing at the phone number provided.
6. **BILL OF LADING:** If Bill of Lading is applicable to this order, send originals to "Ship to" address and duplicate Bill of Lading with invoices to "Bill to" address. All correspondence, invoices, bills of lading, shipping memos, packages, etc., must show purchase order number. If factory shipment, advise factory to comply.
7. **TRANSPORTATION CHARGES:** Invoices for prepaid transportation charges must be supported by original receipted expense bills.
8. **FOB POINT AND FREIGHT CHARGES:** Unless otherwise specified on this order, all items shall be delivered FOB Destination. No charge for delivery, drayage, express, parcel post, packing, cartage, insurance, license fees, permits, or for any other purpose will be paid by LRCCD unless expressly included and itemized in the order. Unless otherwise shown, on "FOB Shipping Point" transactions, CONTRACTOR shall arrange for lowest cost transportation, prepay and add freight to invoice and furnish supporting freight bills if the amount exceeds \$50.00. On "FOB Shipping Point" transactions, should any shipments under this purchase order be received by LRCCD in a damaged condition and any related freight loss and damage claims filed against the carrier or carriers be wholly or partially declined with the inference that damage was the result of the act of the shipper such as inadequate packaging or loading or some inherent defect in the equipment and/or material, CONTRACTOR on request of LRCCD shall at CONTRACTOR's own expense assist LRCCD in establishing carrier liability by supplying evidence that the equipment and/or materials was properly constructed, manufactured, packaged, and secured to withstand normal transportation conditions. Shipments that are California intrastate in nature and where freight is to be borne by LRCCD shall be tendered to carriers with written instructions that rate and charges may not exceed the lowest lawful rates on file with the California Public Utilities Commission.
9. **PATENT INDEMNITY:** The CONTRACTOR shall hold LRCCD, its officers, agents and employees harmless from alleged liability of any nature or kind, including costs and attorney fees and expenses, for infringement or use of any copyrighted or uncopyrighted composition, secret process, patented or unpatented invention, article or appliance furnished or used in connection with the contract or purchase order.
10. **TAXES:** Certain articles sold to LRCCD are exempt from certain Federal excise taxes. LRCCD will reimburse the CONTRACTOR for, or pay directly, all California State and local sales and use taxes applicable to this purchase.
11. **EQUAL OPPORTUNITY EMPLOYER:** The acceptance of this purchase order by a supplier of goods and services is a certification that such supplier complies with all provisions of executive order 11246 and is an equal opportunity employer.
12. **GENERAL SAFETY ORDERS:** All materials, supplies and services sold to LRCCD shall conform to the general safety orders of the State of California. All materials, except as otherwise specified, must be new and of the best quality of their respective kinds.
13. **INDEMNIFICATION:** CONTRACTOR shall indemnify, defend and hold harmless LRCCD, its trustees, officers, agents, employees and volunteers, from any and all claims, demands, suits, causes of action, damages, penalties, breaches of this agreement, infringement of patent rights, costs, expenses, violations of employee occupational health and safety laws, attorney fees, losses or liability, property damage, personal injuries to or death of persons, arising out of, alleged to have arisen out of, or relating in any way to CONTRACTOR's work to be performed under this agreement, except if caused solely by the negligence of LRCCD.
14. **TERMINATION:** LRCCD may terminate this agreement and be relieved of the payment of any consideration to CONTRACTOR should CONTRACTOR fail to perform the covenants herein contained at the time and in the manner herein provided. In the event of such termination LRCCD may proceed with the work in any manner deemed proper by LRCCD. The cost to LRCCD shall be deducted from any sum due the CONTRACTOR under this agreement and the balance if any, shall be paid the CONTRACTOR upon demand.
15. **ASSIGNMENT:** Without the written consent of LRCCD, this agreement is not assignable by CONTRACTOR either in whole or in part.
16. **PUBLIC WORKS PROJECTS:** CONTRACTOR must comply with Public Contract Code.
17. **CA LABOR CODE:** Pursuant to Section 1700, and following, the CONTRACTOR shall pay not less than the prevailing rate of per diem wages as determined by the Director of the California Department of Industrial Relations. Copies of such prevailing rate of per diem wages are on file at the Business Office of the Los Rios Community College District, 1919 Spanos Court, Sacramento, CA 95825. Those copies shall be made available to any interested party upon request. The CONTRACTOR shall forfeit, as penalty to the LRCCD, Fifty Dollars (\$50.00) for each calendar day or portion thereof, for each workman paid less than the stipulated prevailing rates for any work done under the contract by him/her or by any subcontractor under him, in violation of the provisions of such Labor Code.
18. **NOTICE:** Your employees may be exposed to hazardous substances during the course of their work while on LRCCD property. For additional information on the hazardous substances that your employees may be exposed to contact the LRCCD General Services Department at (916) 568-3048.
19. **INSURANCE:** CONTRACTOR shall, at all times, maintain in full force and effect the following insurance: Workers' Compensation, Commercial General Liability, Auto Liability, and Professional Liability if licensed professional. Policy limits for each shall be at least \$1,000,000 AND \$3,000,000 AGGREGATE for bodily injury, personal injury and property damage. Any combination of General Liability and Excess Coverage can be combined to meet the Aggregate. LRCCD shall be named as an additional insured on CONTRACTOR's policies. The CONTRACTOR shall provide a certificate of insurance and required endorsements to comply with this section at least 15 days prior to commencement of work under this contract. The certificate shall state that LRCCD will be given 30 days notice of any material change or cancellation in coverage.
20. **DISQUALIFIED EMPLOYEES:** CONTRACTOR shall ensure that persons who perform services on LRCCD property have not been convicted of any felony, or any controlled substance offense or any sex offense as those terms are defined by Education Code section 87008-87010. If LRCCD determines that any person employed by CONTRACTOR to work on LRCCD property is incompetent, unfaithful, intemperate, disorderly, abusive or is otherwise unsatisfactory, CONTRACTOR shall cause that employee to be removed from working on LRCCD property immediately, and that person shall not be employed again on LRCCD property.
21. **WORK AUTHORIZATION:** Prior to LRCCD's acceptance of this Agreement, CONTRACTORS who are not U.S. citizens must provide verification of (a) work authorization status from the appropriate U.S. Department of State; (b) a copy of their U.S. visa; (c) the number of days present in the U.S.; and (d) tax treaty status. LRCCD shall not make any payments to CONTRACTOR unless CONTRACTOR holds the appropriate U.S. visa. CONTRACTOR is responsible for ensuring they are in possession of the appropriate visa.
22. **WARRANTY:** CONTRACTOR expressly warrants that all materials, goods, equipment, services, and/or labor shall conform to the requirements set forth or incorporated into this order and any applicable industry standards or requirements, shall be merchantable and free from defects in workmanship, materials and/or design (including latent defects), and shall perform as specified. CONTRACTOR further warrants that all materials, goods, equipment, services, and/or labor will be fit and sufficient for the particular purposes intended by LRCCD. Unless agreed upon otherwise between LRCCD and CONTRACTOR, the warranty period shall be the longer of: (a) any express warranty included in this service agreement; (b) one year after the materials, goods, equipment, services, and/or labor are accepted by LRCCD; or (c) any warranty period provided under any applicable California law.

# Requisition

Supplier: MISCELLANEOUS

0000003680

Ship To: RECEIVING  
10 COLLEGE PARKWAY  
FOLSOM CA 95630-6798

<b>Business Unit:</b> GENFD OPEN	
Req ID: 0001011349	Date: 03/23/2018
Requisition Name: ANATOMAGE TABLE IMAGING	
Requester: Brandi Mitchiner	Bldg#: CTE
Requester Signature	
Buyer: Nicholas Shewmaker	
Approved:	
Entered By: MITCHINB 23-MAR-2018	

Line-Schd	Description	Quantity	UOM	Price	Extended Amt	Due Date
3-1	ANATOMAGE TABLE CONVERTIBLE W/STAND-UP OPTION + DIGITAL LIBRARY	1	EA	68,016.00	68,016.00	04/20/2018
ASSET DEPT: CTE      LOCATION: 04CYPH234      CATEGORY: EQU:OTHER 1      PROFILE: EQP:OTHER						
4-1	SHIPPING AND HANDLING	1	EA	1,920.00	1,920.00	04/20/2018
ASSET DEPT: CTE      LOCATION: 04CYPH234      CATEGORY: SHP      1      PROFILE: EQP:OTHER						
5-1	7.75% TAX	1	EA	5,270.00	5,270.00	04/20/2018
ASSET DEPT: CTE      LOCATION: 04CYPH234      CATEGORY: TAX      1      PROFILE: EQP:OTHER						

Total Requisition Amount:      75,206.00

VENDOR: ANATOMAGE INC.  
303 ALMADEN BLVD., #700  
SAN JOSE, CA 95110  
WWW.ANATOMAGE.COM  
INFO@ANATOMAGE.COM  
PHONE: (408) 885-1474  
FAX: (408) 295-9786

PRICE INCLUDES SPECIALTY DISCOUNTED RATE.

INCLUDED WITH TABLE: INVIVO5 3D IMAGING SOFTWARE WITH MEDICAL DESIGN STUDIO, 1ST YEAR WARRANTY WITH SOFTWARE UPGRADE AND TECH SUPPORT, ON-SITE TRAINING, AND HARD COVER TABLE COVER.

BU	Acct	Fd	Org	Prog	Sub	Proj	Amount
GENFD	6490	12	FL.VI.ALHT	12250	00000	482N	75,206.00

**Purchases Charged to Catagorical Programs, Grants or Special Project.**

This purchase is in compliance with the requirement of IDPC advanced

For grants/special projects 482N Imaging

Name: Nicholas Shewmaker objectives #2



<b>Approval Signature</b> <u>Nicholas Shewmaker</u>	<b>Approval Signature</b> <u>mfactor</u>	<b>Approval Signature</b>
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**LOS RIOS COMMUNITY COLLEGE DISTRICT**  
**Sole Source Purchase Justification**

Date: **04/13/18**

To: **Brandi  
Mitchiner**

From: **FLC Business Services / LRCCD Purchasing**

Subject: Justification Requirements for Sole-Source Procurements

**Requisition No. 0001011349**

**Vendor Name: Anatomage Inc.**

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### **SOLE-SOURCE ITEMS**

Sole-source items are those items which perform a certain function for which no other items are known to exist. In a highly technological society, either patents or a clearly superior product may perform a function that limits you to a sole source. If it is economically advantageous and critical for its use in conjunction with instruction or operation to use such a product, then it is suggested that you do so. Justification for specifying such items is extremely important and should be clearly stipulated. Sole-source situations can be minimized by your using performance specifications and request for quotes (RFQ's).

Competitive bidding is not a thoroughly suitable purchase method for sole-source items. It is best to advertise for bids on an "approved equal" basis; if no bids are offered, proceed to negotiate a fair and reasonable price with the sole source. When only one bid is received, you may have a sole-source situation if you believe that no other competitive sources are available.

Sole-source acquisitions must be justified in sufficient detail to explain the basis for suspending the usual competitive procurement process.

The following represents factors that might justify sole source:

1. What capability does the proposed vendor have that is critical to the specific effort and make the vendor clearly unique compared to other vendors in the same general field?
2. What prior experience of a highly specialized nature does the proposed vendor have that is vital to the proposed effort?
3. What facilities, staffing, and/or equipment does the proposed vendor have that are specialized and vital to the commodities or services required?
4. Does the proposed vendor have a substantial investment that would have to be duplicated at the District's expense by another vendor entering the field?
5. If schedules are involved, why are they critical and why can the proposed vendor best meet them?

The enclosed form should be completed and submitted with your Requisition for justification.

**LOS RIOS COMMUNITY COLLEGE DISTRICT**  
**Sole Source Purchase Justification**

Vendor: Anatontage Inc. Requisition No: 0001011349  
Commodity/Service: 3 D Anatomy Table with Digital Library Software & On Site Training  
Estimated annual expenditure for the above commodity or service: \$: 5000


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Pursuant to Purchasing Policy, Sole Source purchase requests & approvals must be performed in advance and shall be supported by written documentation. This form and appropriate supporting documentation fulfills that requirement.

Initial all entries below that apply to the proposed purchase. Attach support documentation justification memo as described below (More than one entry will apply to most sole source products/services for purchase requested).

1.  SOLE SOURCE REQUEST IS FOR THE ORIGINAL MANUFACTURER OR PROVIDER, THERE ARE NO REGIONAL DISTRIBUTORS. (Attach the manufacturer's written certification that no regional distributors exist. Item no. 4 also must be completed).
2.  SOLE SOURCE REQUEST IS FOR ONLY GREATER SACRAMENTO AREA DISTRIBUTOR OF THE ORIGINAL MANUFACTURER OR PROVIDER. (Attach the manufacturers — not the distributor's — written certification that identifies all regional distributors. Item no. 4 also must be completed).
3.  THE PARTS/EQUIPMENT IS NOT INTERCHANGEABLE WITH SIMILAR PARTS OF ANOTHER MANUFACTURER. (Explain in separate memorandum).
4.  THIS IS THE ONLY KNOWN ITEM OR SERVICE THAT WILL MEET THE SPECIALIZED NEEDS OF THIS DEPARTMENT OR PERFORM THE INTENDED FUNCTION. (Attach memorandum with details of specialized function or application).
5.  THE PARTS/EQUIPMENT IS REQUIRED FROM THIS SOURCE TO PERMIT STANDARDIZATION. (Attach memorandum describing basis for standardization request).
6.  CALIFORNIA MULTIPLE AWARD SCHEDULE (CMAS)PURCHASE CONTRACT NO: \_\_\_\_\_
7.  "PIGGY-BACK"/UMBRELLA PURCHASE ON ANOTHER GOVERNMENT ENTITY'S CONTRACTS
8.  NONE OF THE ABOVE APPLIES. A DETAILED EXPLANATION AND JUSTIFICATION FOR THIS SOLE SOURCE REQUEST IS CONTAINED IN ATTACHED MEMORANDUM.

The undersigned requests commodities and services to be procured from the vendor identified as the sole source supplier of the service or material described in this sole source justification and is authorized as a sole source for the service or material.

 AUTHORIZED SIGNATURE      9/13/2018 DATE

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**SOLE SOURCE AUTHORIZATION: (PURCHASING USE ONLY)**

**APPROVED**    **DISAPPROVED**

By: \_\_\_\_\_ Date: \_\_\_\_\_ Guidelines Div. #: \_\_\_\_\_

# *Anatomage*

March 17th, 2017

## **Proprietary Equipment Certificate**

This is to certify that the Anatomage Virtual Dissection Table is the World's first 3D Anatomy Table and a Proprietary Equipment of Anatomage Inc having its Corporate Headquarters located at 303 Almaden Blvd Ste 700, San Jose, CA 95110. The following features are exclusively available on the Anatomage Table:

- 81" LIFE-SIZE display with touch screen.
- 3 full body cadavers with highly detailed annotations.
- True 3D Dissection, layer by layer and structure by structure.
- 20 High resolution regional scan data with upto 0.1 mm resolution.
- Digital library contains over 1400 different entries.
- Unique content - Embryology, 4D Scans, Histology, Animal Cadavers.
- Explorer tool to animate blood flow for any artery or vein in the cadavers.
- Craniotomy tools to dissect through skull and view brain surface.
- Full medical level anatomy class curriculum and customization functions.
- Award winning 3D radiology software and medical design engineering software included.

The product design and specifications are the property of and controlled by Anatomage Inc, USA.

Sincerely,  
Jake Lehman



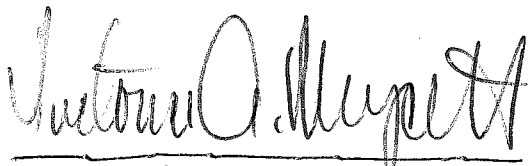
Product Sales Manager  
Phone (408) 885-1474 x114  
jake.lehman@anatomage.com

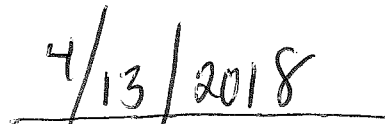
## ANATOMAGE PURCHASE JUSTIFICATION MEMO

The Anatomage Table is the only fully segmented real human 3D anatomy system. Users can visualize anatomy exactly as they would on a fresh cadaver. Individual structures are reconstructed in accurate 3D, resulting in an unprecedented level of real accurate anatomy, dissectible in 3D. Anatomy is presented as a fully interactive, life-sized touch screen experience, in operatory bed form. The Table allows for exploration and learning of human anatomy beyond what any cadaver could offer.

Anatomage offers 4 gross anatomy cases, more than 20 high resolution regional anatomy cases, and more than 1000 pathological examples, including animal cases. These are high resolution and high quality cases are unique to Anatomage. Thousands of structures are meticulously segmented from photographic images to deliver the most accurate real 3D anatomy. Even individual vascular structures are meticulously traced to be accurate. All this is made possible by Anatomage's unique technology and years of painstaking segmentation work. These features cannot be copied overnight and we are proud to say that we are the only ones that offer such content.

The anatomy table we are ordering from Anatomage is being purchased for Imaging CTE program. Our MRI, Computed Tomography, and Interventional Radiography certificate programs will have primary use of the table, installed in Cypress Hall Room 234, but will also be available to FLC's Biology department.

  
\_\_\_\_\_  
DEAN, VICTORIA MARYATT

  
\_\_\_\_\_  
DATE

**LOS RIOS COMMUNITY COLLEGE DISTRICT**

1919 Spanos Court, Sacramento, CA 95825  
Phone (916) 568-3071 FAX (916) 568-3145  
Purchasing Department  
[lrcodpurchase@losrios.edu](mailto:lrcodpurchase@losrios.edu)



Sacramento City College    American River College    Cosumnes River College    Folsom Lake College

**CONFLICT OF INTEREST STATEMENT,**

This is to certify that the undersigned employee(s) has/have no economic interests which may foreseeably be materially affected by having participated in the development of the specifications for service, equipment and/or material represented by the referenced requisition.

*(Pursuant to District Regulation R-8323 and District Policy P-8-611*

*This form must be signed and submitted with the Purchase Requisition (GS Form 127) for those transactions listed below.)*

- ☛ Sole Source
- ☛ Professional Service Agreements
- ☛ Service Agreements (GS Form 78: Rev. 2/2012)
- ☛ Selection Committee Recommendations (formal process)

**READ CAREFULLY BEFORE SIGNING:**

X: [Signature]  
Employee/Date

0001011349  
Requisition Number

\_\_\_\_\_  
Selection Committee Member/Date

\_\_\_\_\_  
Selection Committee Member/Date

\_\_\_\_\_  
Selection Committee Member/Date

\_\_\_\_\_  
Selection Committee Member/Date

\_\_\_\_\_  
Selection Committee Member/Date

\_\_\_\_\_  
Selection Committee Member/Date

OFFICIAL USE ONLY:	
PURCHASE ORDER#	
BUYER/DATE;	



# Anatamage

## Price Quotation

Anatamage Inc.  
303 Almaden Blvd., #700  
San Jose, CA 95110  
[www.anatamage.com](http://www.anatamage.com)  
[info@anatamage.com](mailto:info@anatamage.com)  
(408) 885-1474 Phone  
(408) 295-9786 Fax

Prepared By Kingston Yi  
Email [kyi@anatamage.com](mailto:kyi@anatamage.com)

Created Date 3/16/2018  
Expiration Date 6/16/2018  
Quote Number 2018-2635

Contact Name Victoria Maryatt  
Phone (916) 608-6925  
Email [maryatv@flc.losrios.edu](mailto:maryatv@flc.losrios.edu)

Bill To Name Folsom Lake College  
Bill To 10 College Pkwy  
Folsom, California 95630  
United States

Ship To Name Folsom Lake College  
Ship To 10 College Pkwy  
Folsom, California 95630  
United States

Additional Information Sales tax rate is 7.75%, price includes specialty discounted rate

Product	Line Item Description	Sales Price	Quantity	Total Price
Anatamage Table Convertible + Digital Library	Table w/Stand-up Option	\$78,000.00	1.00	\$68,016.00
InVivo5 3D Imaging Software with Medical Design Studio	Included w/Table	\$0.00	1.00	\$0.00
1st Year Warranty, Software Upgrade, Tech Support	Included w/Table	\$0.00	1.00	\$0.00
On-site Training	Included w/Table	\$0.00	1.00	\$0.00
Table Cover (Optional, Hard Cover)	included with table	\$250.00	1.00	\$0.00

Total Price \$68,016.00  
Tax \$5,270.00  
Shipping and Handling \$1,920.00  
Grand Total \$75,206.00

Country of Origin: United States  
Place of Manufacture: San Jose, CA  
Price does not include taxes and import duties, which must be paid by Consignee  
Quote is only valid in USD

### Acceptance

Signature \_\_\_\_\_ Date \_\_\_\_\_

*Anatontage*

**TABLE**



## WHY THE ANATOMAGE TABLE?

The Anatomage Table is the most technologically advanced virtual dissection table for anatomy education. The Table's life-sized display, clinical content, and renowned imaging software separates the Table from any other anatomy education tool on the market.

### ADVANCED EDUCATIONAL TOOL

The accuracy of real human anatomy and quantity of clinical cases are unique aspects of the Anatomage Table. The Table includes ultra-high quality (UHQ) visualization for students to view photorealistic anatomical structures. Research has proven that working with the Table improves student retention and test scores.

### TECHNICAL SHOWCASE

The Anatomage Table features highly advanced technology that draws attention from visitors as well as students and faculty. The Table will quickly become the technological centerpiece at your institution that sets you apart from other institutes.

### CLINICAL CARE REVIEW

Beyond anatomy education, the Table's application extends to clinical planning and consultation. The Anatomage Table is FDA cleared for use in assisting medical diagnosis. It can be utilized as a powerful radiology workstation and as a valuable tool for surgical case review, patient consultation, and medical research.

### COST REDUCTION

Unlike cadavers, the Anatomage Table does not require ventilation infrastructure, embalming equipment, personnel, or storage. The contents are reusable, so there are no recurring acquisition costs. The product will save significant costs over the long term.

### CLEAN & SAFE

The Anatomage Table offers a high quality lab experience without any chemicals. There are no possibilities of leaks, no environmental concerns, and no additional ventilation requirements. The product provides headache free lab sessions.



## HOW THE TABLE COMPARES

	Models	Cadavers	TABLET
Chemical Free	✓		✓
No Special Facility	✓		✓
No Restrictions	✓		✓
Unlimited Cases			✓
Minimal Recurring Costs	✓		✓
Real Human Anatomy		✓	✓
Unlimited Cutting			✓
Life Size		✓	✓
Updates & Support			✓

*"For surgeons, residents, fellows, and every level of education it is a new opportunity to be able to learn anatomy in a different manner that's very, very efficient."*

- David Thiel, M.D., Associate Professor of Urology  
Mayo Clinic, Florida

# APPLICATIONS

## LECTURE

The Table can be used during lectures since it can connect to projectors. Instructors can create and demonstrate procedural material, making lectures more dynamic and engaging. Screen captures and video clips can be easily saved and shared with students as review material. Running a full lecture with the Table turns a traditional, difficult class into an exciting, highly interactive one.



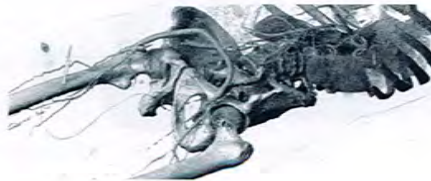
## FULL LAB REPLACEMENT

The Anatomage Table is sufficient to cover the full anatomy class. High accuracy and rich contents offer an excellent replacement to traditional cadaver-based dissection. Since the data preserves the real-life patient color and shape, the Table is more effective than embalmed cadavers.



## LAB REVIEW

The Anatomage Table can be used in conjunction with existing cadaver dissections. With its segmentation features, each anatomical structure can be separated and reviewed individually. Students have the opportunity to dissect reconstructions and cross-sectional planes of clinical cases. They can compare abnormal pathologies to healthy cases, view structural relationships, and review in collaborative groups to answer questions and take quizzes.



## PATIENT CONSULTATION

Visualization is easier for patients when viewing their anatomy in 3D color as opposed to 2D black and white slices. With this technologically impressive visual consultation, the patient's visit will be much more effective.



## CLINICAL TRAINING

A strong pathological and procedural training tool, the Anatomage Table's features are derived from an FDA cleared surgical planning software that merges actual 3D devices onto a patient image. This allows for the simulation of the device interacting with the medical image. This feature also allows for a new kind of medical device training without relying on animals or physical specimens.



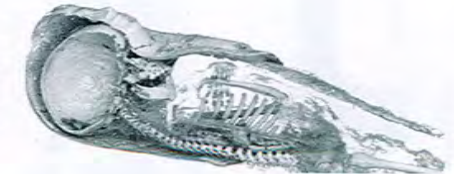
## VETERINARY USAGE

The Table is an ideal instrument for veterinary professions. Compare anatomy of different animals for education or research, load your own veterinary scans for instruction or case planning, and study animal anatomy.



## FORENSIC & VIRTUAL AUTOPSY

CT scanning is increasingly popular in the field of forensics and archaeology. The Anatomage Table had a crucial role in the historic investigation of Pharaoh Tutankhamun's cause of death, documented by Fuji TV and PBS in August 2012, and by STV and BBC in October 2014. The Table's forensic autopsy applications were also positively reviewed in a 2013 Scientific American article.



## FOCAL POINT

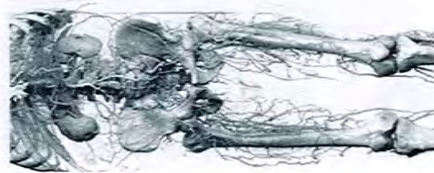
In a public setting the technologically advanced Anatomage Table never fails to draw attention. The Table's intuitive interface allows anyone to approach and explore human anatomy.



## FEATURES & CONTENTS

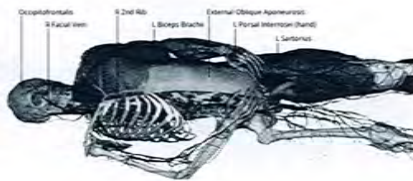
### ULTRA-HIGH QUALITY RENDERING

Ultra-high quality (UHQ) rendering on the Table is the most photorealistic view of anatomy available on the market. Soft and hard tissues are brought to life with extraordinary detail and realistic coloring. Structures that are traditionally more difficult to see, such as vasculature and muscle fibers, are viewed clearly. Seeing anatomy in UHQ will give students a limitless view into the body as they develop a clinical-level understanding of cases.



### INTERACTIVE DISSECTION & ANNOTATIONS

The Table offers unique interactive dissection tools with thousands of annotations for both male and female cadavers. With the touchscreen, users can rotate structures, make multiple cuts, undo any cut instantly, and create notes. They can explore the body by selecting different structures or locating structures from a list of names. The Craniotomy Tool allows for users to dissect through the skull and view the tissues of the brain.



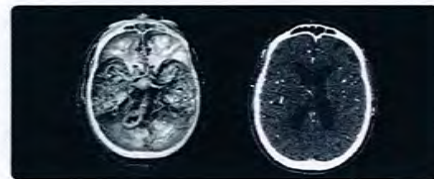
### QUIZ MODE

Material for quizzes and practicals can be created on the Table. Instructors can place numbered pins and other models on the cadavers to designate questions for students. The Table's Quiz Mode allows teachers to lock specific tools, so students have limited access during the quiz. Quiz Mode can be password protected to ensure students stay on track and are unable to alter the tools.



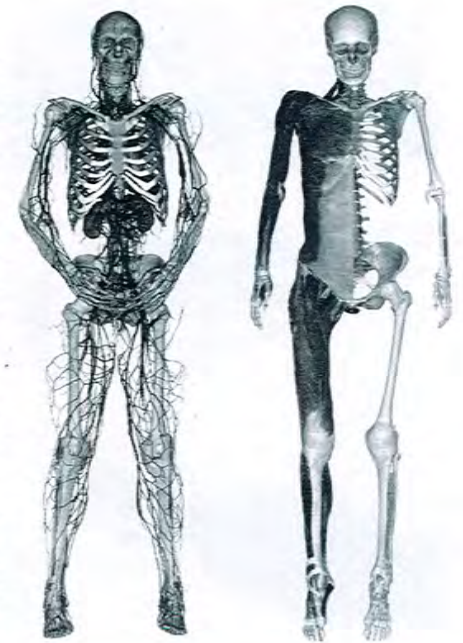
### RADIOLOGY WORKSTATION

The Table functions as a complete radiology workstation and loads DICOM data such as CT and MRI scans. The Table integrates with PACS for clinicians to load images as 2D radiological slices and 3D reconstructions. Whether using the library images or your own medical scans, the Table delivers full 3D anatomy. Clinicians can study pathological examples and review patient scans for clinical and educational purposes.



### GROSS ANATOMY CONTENTS

The Table contains both life-sized male and female gross anatomy. Including multiple full-body cadavers ensures that students are exposed to anatomical variations. External and internal anatomy is volumetrically displayed from head to toe and includes thousands of annotated structures. The images are created by digitally tracing real non-chemically treated cadavers. The color and shape of the cadavers are preserved to accurately depict real anatomy.

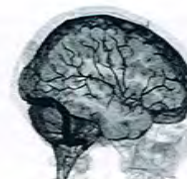


The virtual body can be cut layer-by-layer and users can make certain structures transparent to view surrounding anatomy. Students can clearly visualize cardiovascular, nervous, and muscular structures. Additionally, blood flow can be vividly animated for any artery or vein in the cadavers.

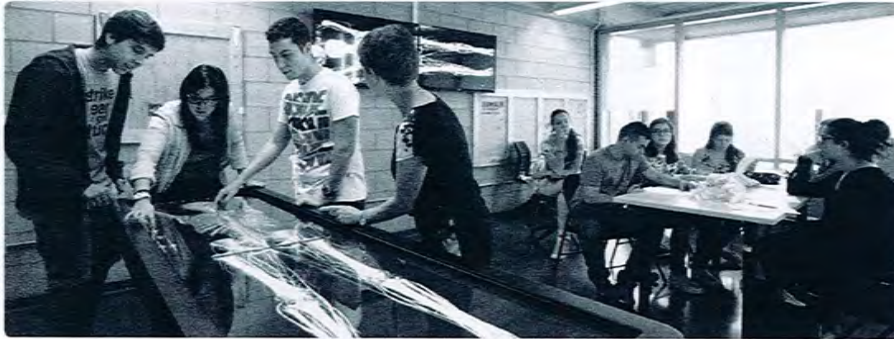
### REGIONAL ANATOMY CONTENTS

The Table includes high-resolution 3D regional anatomy up to 0.2mm. The regional scans cover the entire body and allow for students to visualize detailed structures such as nerves or blood vessels that are difficult to see by any other means.

Users are provided with an in-depth view of major structures in the body such as the heart, lungs, abdomen, and pelvis that might be difficult to see on a full body cadaver. The Table's features allow for users to easily toggle systems on and off to view specific anatomical structures. The structures can be rotated or zoomed in on for detailed 3D visualization of the body's regional anatomy.



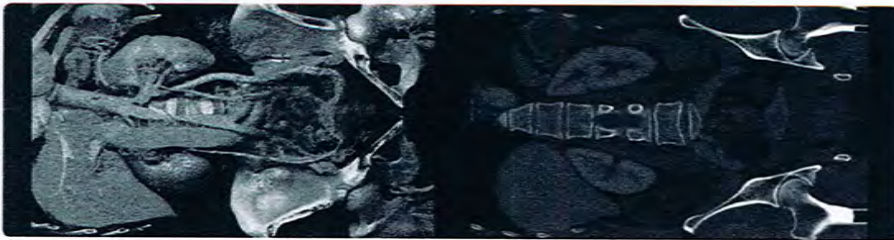
# BUILDING YOUR CURRICULUM



## CLASSROOM INTEGRATION

The Table includes a built-in quiz mode where instructors can drop pins and create material for lab practicals, assignments, and examinations. The Table's video out functions ensures that it can be utilized in lecture halls with projectors or in small group sessions with external monitors.

Present customized lectures or give students the opportunity to lead discussions on the Table. Students can form groups to collaborate while answering questions and take quizzes using the pre-loaded cases.



## THE ANATOMAGE CURRICULUM

The Anatomage Curriculum features an intuitive interface for instructors to cover human anatomy by region and by system. A printed booklet and PDF file are included and can be used with the Table for instructors to easily locate any anatomical region.

Teach comparative, clinical anatomy using real patient data with annotated, relevantly displayed scans from the Table's library. The Curriculum is designed to make the integration of the Table into your classroom as efficient as possible.

## AWARD-WINNING SOFTWARE

Every Table comes with copies of Anatomage's renowned medical imaging software, Invivo and Medical Design (MD) Studio, that can be installed on a separate workstation.

Invivo and MD Studio are high-performance, volume-rendering software packages that provide additional tools

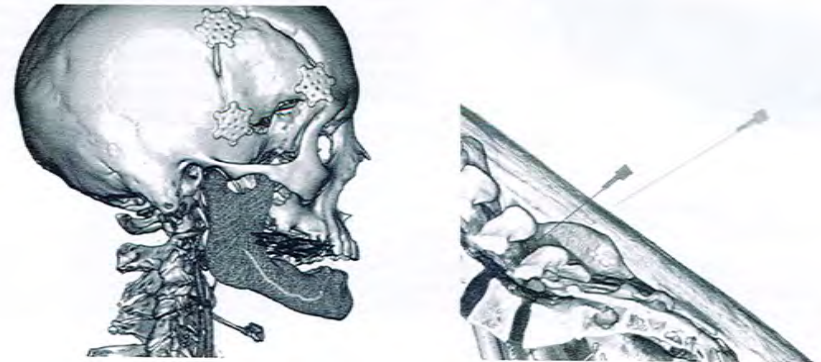
for 3D content creation. Digital models of medical devices can be annotated, segmented, or overlaid directly onto patient scans. Invivo shares the same underlying software as the Anatomage Table and is FDA cleared for clinical applications. Users can make measurements in 2D and 3D for clinical or research applications.



## PERFORM & CAPTURE SIMULATIONS

Segment any patient scan data and create digital models. Invivo's built-in video tool easily captures and shares these simulated movements. Moreover, the software can load in any 3D models and allow users to create customized

simulations with these objects interacting with the scan. With the addition of 3D models added to patient scans, teaching physiology and surgical simulations is an easy possibility.



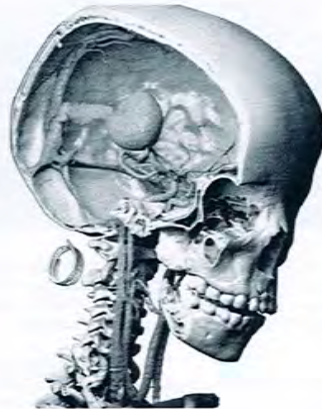
# DIGITAL ANATOMY LIBRARY

## CLINICAL CASES

The Digital Anatomy Library offers over 1,300 clinical cases with a variety of visualization options and includes data from vertebrate anatomy and embryology. The Table includes scans of rare cases such as abdominal ectopic pregnancy, brain aneurysm, and conjoined twins. Students have the opportunity to view conditions that range from various bone fractures, medical implants, gunshot wounds, and more.

## DIVERSE COLLECTION

For each case, users can access the original scan data, 3D image, and medical case notes. The library includes 4D scans where users can view movement such as beating hearts and respiration in real time. The library allows students to make the connection between 2D cross-sectional scan data, 3D anatomy, and 4D visualization. The variety of clinical cases ensures that students gain exposure to a wide range of pathologies.



*"The ability to view a large variety of CT and MRI scans is unique and infinitely useful... Anatomy courses including identification of structures seen in cross sectional anatomy, x-ray, CT or MRI slice data, pathologies or abnormalities, anatomical variations, fractures, or cardiovascular conditions or diseases will find the Table an excellent method to both instruct and test students in these regards."*

– W. Paul Brown, DDS, FICD, FACD  
Stanford University, Division of Clinical Anatomy

## VETERINARY CASES

Included in the Digital Library are full-body cat, dog, and mouse cadavers as well as over 150 other CT scans from various species and breeds. The full-body cat and dog have been fully segmented based on real tissue data so users can toggle individual structures on and off. Additionally, there are numerous CT scans of horses, gorillas, alligators, and even invertebrates such as earthworms and centipedes.



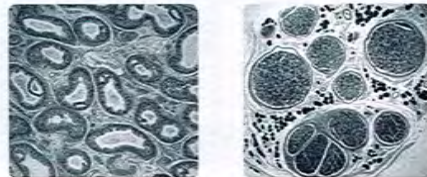
## EMBRYOLOGY CONTENTS

The clinical case library contains vivid embryology content in 3D and 4D for instructors to teach human embryology. Students can view 3D embryo scans to visualize stages of human development in extreme detail. The library includes scans spanning Carnegie stages 13-23 or 28-56 days. Additionally, there is a scan of a 26 week old fetus, along with cases of a fetal brain cyst, umbilical cord cyst, and Dandy Walker syndrome.



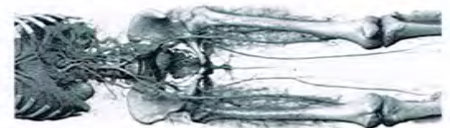
## HISTOLOGY SCANS

The image library includes a variety of microscopic histology scans. Students can examine microscopic tissue structures and cell-specific biomarkers from a collection of accurately stained digital scans. The cell and tissue scans include healthy and abnormal clinical cases from across the body. Viewing histology cases offers students a well-rounded study of anatomy and pathology.



## COMPARATIVE ANALYSIS

The digital library offers comparative study cases with synchronized dissections of multiple cases. Three related cases can be viewed by the user simultaneously. Users can also create their own cases to review pre- and post-surgical scans, congenital comparisons, and cross-species evaluations. Viewing side-by-side case comparisons gives students a comprehensive visualization tool to study and review comparative anatomy.



# Anatamage

attempts have been made to fill this gap over the years, there has yet to be an educational tool that addresses all the limitations of a cadaver.

## 4. Invention of the Anatamage Table

Anatamage started as a radiology imaging company in 2004. The Anatamage team developed InVivo\_Dental for the purpose of uploading cone beam computed tomography data (CBCT) to be manipulated and examined in 3D by dentists, oral surgeons, endodontists, and orthodontists. InVivo\_Dental ("Invivo") was implemented into the dental industry and allowed doctors to remove or manipulate the 3D volume for improved medical diagnosis and examination.

Anatamage recognized the need for a better alternative to cadaveric studies while working on visualizing medical images to make them as real as possible. Anatamage pursued the concept of a virtual dissection table to improve diagnosis for the entire body. The solution came as the Anatamage Table, a virtual dissection table replicating a real cadaver bed for a representation of all real patient data in a 1:1 life size scale. The Anatamage Table is the solution to the problems associated with physical cadaver use.

### 4.1 Virtual Cadaver

The Anatamage Table provides the ability to manipulate a life size virtual cadaver. Anatamage collected male and female cadaver data sets from the Visible Korean project. Anatamage established fully 3D volumetric visualization of human cadavers by combining their software with the photographs of 0.2 mm axial slices of the cadavers. The virtual cadavers are more accurate than any other alternative and more searchable than a cadaver. The cadaver can be initially viewed in a sagittal, coronal or axial view. The Table's interactive touch screen is sensitive to multi-point touch for simple rotation and zoom gestures.

The 3D cadavers can be dissected for internal inspection. A slice tool can be used to create either a custom cut or an anatomically predetermined clipping plane in the volume of the cadaver. The visible volume can be toggled with a scroll tool that slides the volume perpendicular to the plane of the current slice, allowing for segments of the volume to be removed or brought back into view.

Measurements of the visible image can be taken in a variety of ways. Clicking two consecutive points with the measurement tool will create a visible line with a measurement superimposed over the image. Selecting 3 points measures the angle of the selected area in a 3 dimensional plane.

The full body male and female cadavers are composed of real patient data, portraying tissue in true color, without the presence of any embalming chemicals. The full body male and female cadavers have been systematically segmented and annotated. The male cadaver can be peeled away structure by structure to demonstrate the various anatomical systems associated with the human body thereby creating a unique opportunity to display anatomical relationships that would otherwise be impossible to see with traditional cadavers.

There are two ways to annotate a structure on the cadavers. The first way is to touch the structure and have the target structure highlighted with the designated annotation appearing on top of it. The second way is where annotation text, outside of the volume, connects lead lines to the target structure allowing entire systems to be annotated at once. The Table also contains a pen tool that can be used to draw on the active image and highlight specific areas. After using the pen tool, any image can be saved and exported as a JPEG file.

### 4.2 Upload Custom CT/ MRI Scans

The Table imports files in the digital imaging and communications in medicine (DICOM) standard. The Table software reads a DICOM file and directly renders the scan in 3D. Uploaded files are manipulated in the same manner as either of the cadavers where the visible volume can be manipulated, rotated, and removed by the touch of a finger. The Table presents a DICOM file in a variety of different renderings, each



# Anatomage

Videos may provide an adequate amount of information, but the large variety of videos creates a problem. As students filter through the large selection of videos, the number of views does not always indicate which video is the best choice to find the target information<sup>15</sup>. Students spend more time searching for the right video than studying the material being presented<sup>15</sup>. The study ended with an emphasis on encouraging teachers to create their own material. While this is helpful, the point of having a channel dedicated to human anatomy is redundant if instructors have to make their own custom videos.

### 3.3 Medical Anatomy Apps

Medical anatomy applications for mobile devices have become an increasingly popular study aid for students. *Clinical Anatomy* published an article reviewing the use of various anatomy apps and their application to anatomy education<sup>16</sup>. Generally, these apps give a 3-dimensional view of the body that can be manipulated and rotated using a touch interface. The apps can zoom in on anatomical features and highlight them for annotation. The whole body can be viewed and regionalized with varying levels of detail. Regional portions illustrate the complexities of anatomical relationships and can have layers removed or added to increase detail. Most of the apps allow the instructor to screen-share the app with a computer to project the demonstration to the class. The medical anatomy apps provide a significant improvement over anatomy videos, yet lack the ability to address every limitation of cadaver use. In conclusion, medical anatomy apps were found to be limited by anatomical accuracy and conformation to an education standard<sup>16</sup>.

Medical anatomy apps provide gross anatomy of the human body, but the accuracy of these apps is still contended. It is notable that each app has *fascia* missing from the gross anatomy. The inclusion of *fascia* hinders viewing ability of structures underneath, yet leaving out *fascia* does a disservice to anatomical comprehension. The attention to detail in the anatomical structures is glazed over and doesn't give an accurate visualization of real human tissue. The scale of the human models is not precisely accurate because they're based off an artist's rendition. Data sets from real human patients would be more desirable for an accurate scalar representation of anatomical relationships<sup>16</sup>. Medical anatomy apps lack realism in their renderings, leaving students unable to visualize true human tissue. While medical anatomy apps can give an overall understanding of the location of anatomical features; they remain to be only a study aid, not a solution to the limitations involved with cadaver use.

### 3.4 Current Perception of Computer Assisted Learning in Anatomy Education

A qualitative study done by Nottingham University in 2010 analyzed the perception of teaching tools in anatomy education<sup>17</sup>. Subjects ranging from prosthetics to animations were covered in their analysis. The goal of the study was to identify how various teaching aids were perceived in their teaching application for anatomy education; each was ranked with either poor fit, moderate fit, good fit, or excellent fit<sup>17</sup>. Twelve types of teaching aims were researched including: providing background for clinical disciplines, obtaining a 3D appreciation of the body, relating structure to pathology, and considering issues related to death<sup>17</sup>. Over 200 medical students and anatomists were questioned and the findings were averaged for analysis<sup>17</sup>. The most notable findings concerned ranking in applications of cadaver dissections and computer assisted learning (CAL). In general medical students and anatomists found cadaver dissections superior to CAL in 11 out of 12 categories<sup>17</sup>. CAL didn't receive a rating higher than "moderate" for any category, yet cadaver dissection received ratings of good or better in all but three categories. The study concluded by emphasizing the value of cadaver dissection to anatomists and students, and underlining the few teaching aims like understanding issues related to death that were attainable through dissection. The study portrayed the perceived gap of value between cadaver dissection and computer assisted learning in anatomy education. To medical students and anatomists not all educational tools are currently valued on an equal level. While

cadaver is cut, it can never be uncut. Even with multiple cadavers in a lab, teaching anatomy can be difficult as there are so many ways to present the varying densities of tissue in the human body.

Excavation of a cadaver presents another list of obstacles for instructors to overcome. Visualization of cadaveric tissue is not as accurate to that of a living body. The embalming process changes the color of human tissue to more of a gray/ yellow color and causes soft tissue to collapse, making veins difficult to distinguish from surrounding tissue. Therefore making mistakes during the dissection is at a higher probability. A lack of labeling with cadavers often results in a significant amount of trial and error, but the combination of difficulties can hinder the learning process.

Cadavers are limited to portraying one example of a cause of death. Finding rare or unique cases of death from a cadaver is limited because supplies of cadavers are finite. There are also regulations set in place to prevent bodies that died with certain diseases from ever being dissected.

### **3. Searching for the Right Technology**

This era of modern technology has generated an interconnected world of easily accessible information. As medical education progresses, technology follows hand-in-hand to address educational obstacles. In this section, technologies that have evolved into the role of medical education will be examined and reviewed as a solution to the cadaver.

#### **3.1 Physical models**

Physical models have accompanied cadaver dissection to aid in anatomy education for decades. Models are used to give a representation of an organ or anatomical feature in a physical non hazardous form. Most models are accompanied by information regarding the names and locations of specific features located on the model. Models give students a physical image of an organ outside of lab that is safe to use.

Physical models have a number of limitations that rank their use in anatomy education below both dissection and computer modeling<sup>16</sup>. Models are artistic renderings of an anatomical feature, which could mean that there is little accuracy to a life-size scale or misinformation with the exact placement of anatomical features<sup>12</sup>. Some models can be taken apart, but only in predetermined areas that don't allow students the freedom achieved by a dissection<sup>12</sup>. The segmented parts of a model deter further exploration that other alternative aids provide. The main problem with a model's use in anatomy education is the lack of information from surrounding features. Fasciae, adipose tissue, and connective tissue are all taken out of a model to present the anatomical feature independent of surrounding systems<sup>12</sup>. Removal of the surrounding systems hinders a student's understanding of the relationship an organ has with other systems in the body. Additional anatomical aids are required when using models to give students a comprehensive understanding of the human body.

#### **3.2 Anatomy Education Videos**

With digital solutions such as Youtube Education and the Human Anatomy Channel, students and instructors can create and share anatomy content equivalent to the information found in lectures<sup>13</sup>. A 2014 study published by *Anatomical Sciences Education* reviewed videos on the anatomy of the heart for the purpose of analyzing the effectiveness of YouTube videos as an educational source<sup>14</sup>. Of the videos that were available, the most informative were those where an instructor was conducting the presentation. On average, videos that feature plastic models had more views than videos with animations due to the three-dimensional view better showcasing the location of veins and arteries in relation to the heart. Anatomy videos lack the interactivity that is associated with physical manipulation. In comparison to both dissection and even physical models, videos don't provide any option for exploration, giving a narrow view of the subject matter. While these videos provide helpful information, the low viewership and lack of interactivity suggest that other methods are preferred over YouTube videos as a primary source of instruction.

# Anatomage

There are also recurring costs that come with running a cadaver lab (Appendix B). Handling fees from the Willd Body Program cover the transportation, storage, and disposal of the cadaver after use by an institution.

The costs that are not so visible are the time constraints of running a cadaver lab. Institutions often employ a dedicated staff or have a director that is solely in charge of managing the cadaver lab. These labs demand attention in aspects like training employees, maintaining cadavers, and managing lab equipment, all while also adhering to regulation standards for a cadaver lab. Cadavers must be prepared before a class is able to interact with them. A director could spend 20+ hours a week managing and preparing a lab for student use.

The use of cadavers is an expensive investment. When considering the initial startup costs (Appendix A) and the recurring costs (Appendix B), a traditional cadaver lab becomes very expensive. Table 1 displays the total startup costs of a traditional cadaver lab, based on a program that uses varying amounts of cadavers for different classes<sup>9</sup>. Costs associated with staff, electricity, maintenance and construction all have been excluded from the analysis.

**Table 1**

<b>Total Costs</b>	<b>2 Cadavers</b>	<b>5 Cadavers</b>	<b>7 Cadavers</b>	<b>14 Cadavers</b>
Annual Costs	5,701	14,252.5	19,953.5	39,907
Initial Investment w/ dissection table	15,998	39,320	54,968	109,586
Initial Investment w/ (sv) dissection table	37,998	94,320	131,968	263,586
<b>Startup Cost w/ dissection table</b>	<b>21,699</b>	<b>53,572.5</b>	<b>74,921.5</b>	<b>106,795</b>
<b>Startup Cost w/ (sv) dissection table</b>	<b>43,699</b>	<b>108,572.5</b>	<b>151,921.5</b>	<b>303,493</b>

Lastly, improper use of cadavers can result in fines or imprisonment depending on the state. Misuse of cadavers by the governing institution directly violates legislation that protects cadavers. The Cadaver Act protects cadavers from misuse with misdemeanor fines and jail sentence varying by state<sup>10</sup>.

## 2.3 Danger in Lab

Cadavers degrade in quality over time. Formaldehyde and other embalming chemicals delay the degradation process, but require strict ventilation. Formaldehyde is classified as a carcinogen, therefore labs are required to have formaldehyde-monitoring badges to ensure a safe environment for cadaver interaction<sup>11</sup>. Exposure to formaldehyde during dissections can bring about a list of physical symptoms like watering of the nose and eyes, itching and paresthesia of the hands, dizziness, burning eyes, headaches, sneezing, epistaxis, gingival bleeding, oral or pharyngeal itch, and difficulty breathing<sup>11</sup>. While these health complications can be contained with proper ventilation, prolonged formaldehyde exposure is costly for schools and hazardous to the staff and students.

## 2.4 Limitations of Cadavers

Cadavers are effective, but not perfect. The visibility of cadavers is limited to local regions, deterring a comprehensive understanding of anatomical relationships. Cadavers can only be effectively presented to a small group of students to ensure that each sufficiently sees the anatomical feature of interest. A cadaver can only show visibly exposed tissue. 3D understanding of an anatomical system can be accomplished through further excavation into the cadaver, but it involves diving deeper and removing more tissue. Once a

## 2.1 A Global Crisis

Cadaver procurement is a multifaceted obstacle with legal, religious, and societal factors. Within the United States procurement is regulated by donor organizations like the WBD programs, while outside of the United States, it can be hindered by law or lack of legislation depending on the country. A 2011 study conducted by universities and hospitals in Nigeria examined problems with cadaver procurement in hopes of identifying and solving the issue pertaining to cadaver availability for dissection<sup>4</sup>. The source of bodies used in dissection comes from unclaimed bodies in government hospitals or annual donations from the Nigerian police. While legislation protecting cadavers exists, there is no current legislation for medical schools to procure cadavers through donation. The study found factors like religion, culture, and lack of awareness as the possible issues hindering cadaver donation<sup>4</sup>. These barriers could potentially be addressed by raising awareness on the problems of cadaver procurement, which in turn might spur new legislation for medical schools to obtain cadavers through body donation. Without a change to legislation, the researchers fear that medical schools will be forced to use models, resulting in a reduced quality of anatomical knowledge for medical students in Nigeria<sup>4</sup>.

A 2009 study conducted at the University of Belgrade in Serbia set out to resolve the legal obstacles involved with cadaver procurement<sup>5</sup>. Initial legislation stated that medical schools could obtain unclaimed bodies from the morgue, or bodies donated to the school, as long as the families did not object. These ambiguous guidelines often left the medical school in a cadaver-deprived state. Those conducting the study implemented a similar structure to the Uniform Anatomical Gift Act used in the US to solve the legal crisis. Even with new legislation, the lack of cadavers continues to be an issue because society remains unaware of the problems schools face with cadaver procurement.

Various religious views prevent a large portion of the world from donating their body to science. Many religions revere the human body and would consider body desecration a sin. Society is often unaware of the problem of cadaver procurement, which is due to the failure of medical schools to promote the need for donation and to supply funding to educate the public on why cadavers are needed<sup>4</sup>.

The combination of legal, societal and religious issues has resulted in unequal access to cadavers on a global scale. Institutions participating in medical education and research are being forced to pay the high price of importation to stay competitive. While body importation can be arranged through private companies, the need for a better alternative is still prevalent.

## 2.2 Cadavers at a Cost

Cadavers are costly; yet legislation demands cadaver tissue not be sold for any monetary value. Institutions assume responsibility of associated costs to care for the donor until it can be cremated and returned to the family. After receiving a cadaver, an institution must store, maintain and prepare the cadaver for dissection. In addition to the managerial responsibilities, cadaver labs must adhere to strict legal standards and protocols. A cadaver lab must comply with CDC standards of a Biosafety Level 2 (BSL-2) lab, which requires the institution to have an open bench top sink and access to an autoclave<sup>6</sup>. An institution is required to purchase equipment to properly store and maintain each cadaver.

Institutions have two options for building their cadaver lab; either the lab is built into existing infrastructure of a building, or a building is designed around its lab. Equipment exists for both, but the biggest difference is the cost of the dissection table (Appendix A)<sup>7,8</sup>. A cadaver lab is required by law to monitor formaldehyde levels to ensure a safe level of toxicity within the lab during dissection hours. Installing ventilation into either the infrastructure of the building or by purchasing self-contained downward ventilation (sv) dissection tables solves the problem of formaldehyde toxicity<sup>7</sup>. The difference in price for the two dissection tables can range, but averages to about \$11,000<sup>7</sup>.

# Anatamage

## 1. Introduction

Cadavers are considered a privilege to work with among students, teachers and medical professionals. Since the ancient Egyptians, cadavers were used for teaching the workings of the human body, but by the nineteenth century, the demand for cadavers greatly outweighed the supply for medical professionals and educators. Consequently the term "body snatching" was coined as men would steal buried corpses to sell to institutions for anatomical dissection. Eventually legislation was passed to cope with the great demand created by the absence of available cadavers, enabling the legal use of cadavers.

Due to legislation like the Human Tissue Act (2004) and the Uniform Anatomical Gift Act (2006), a person can make the conscious choice of donating his or her body through Willed Body Donation (WBD) programs, which were designed to regulate the division of cadavers among the medical community. On average there are 20,000 whole body donations made each year within the United States<sup>1</sup>. Cadavers are the most common method for teaching anatomy, so they must be distributed to a wide variety of health organizations<sup>1</sup>. While institutions with established programs often have their own WBD program, most schools have to act as third party beneficiaries to the more established institutions<sup>2</sup>. Despite the distribution of cadavers, not every health organization is able to successfully obtain their own cadavers. Educational institutions are still limited by the obstacles imposed by cadaver management.

Cadavers remain in high demand because there are assumed to be no other viable substitutes for demonstrating accurate visualization of real human tissue in anatomy education. Managing a cadaver lab is costly and time consuming. Specialized equipment must be purchased and properly used to maximize the cadaver's practical lifespan. Once a cadaver is dissected it must be rigorously maintained with hazardous embalming chemicals and regularly monitored by trained professionals. When examining a cadaver, visibility is localized to the exposed area of tissue. Rotating a cadaver is not a viable option, so students are left viewing only a portion of the organ or anatomical system. Aids to cadavers must be implemented to further enhance the understanding of anatomical relationships and infrastructure. Technology can be a solution to all the limitations associated with cadavers.

The Anatamage Table addresses the limitations presented by the use of cadavers. The Anatamage Table is an anatomy educational tool that displays real patient tissue in a life-size scale. Unlike cadavers, the Anatamage Table isn't restricted by legal regulations, so it is globally accessible. The Table presents a full 3D visualization of real patient data that can be segmented and annotated. The Table creates a safe working environment for student interaction, by removing the need for hazardous materials that students are exposed to during cadaver dissection. The Table reduces recurring costs and prevents the need for expanding a cadaver lab.

This paper will offer an investigation into the dilemmas involved with cadaver use, an introduction to the Anatamage Table and how it addresses the limitations associated with cadaveric studies, and a comprehensive look into the abilities and applications of the Anatamage Table.

## 2. The Dilemma with Cadavers

Today, the majority of institutions that teach anatomy use cadavers as their primary teaching tool. There are nearly two-thousand medical schools worldwide, 141 of which are accredited within the United States<sup>3</sup>. Each year these numbers increase as more students apply to medical programs. Willed donation programs allow people to donate their body to a school of their choice for either medical investigation, medical testing, or anatomy education. Major medical schools within the United States and Western Europe each receive anywhere from 50 to 120 cadavers per year and consequently build a surplus to supply other schools' cadaver programs<sup>2</sup>. While these willed body programs collect a large sum of bodies, the bodies that make it to institutions for dissection still come with fiscally significant costs. Even with a well-funded lab, cadavers are merely a tool for instructors to show real human tissue. Medical institutions have to find several alternatives to accomplish a comprehensive understanding of anatomy for their students.

## **The Anatomage Table: A Solution to the Limitations of Cadavers**

### **Executive Summary**

Cadavers are the most common tool used for teaching anatomy. Although cadavers are valued as an indispensable tool, their use is accompanied by a list of obstacles for institutions to overcome. Traditional cadaver labs are required to adhere to legal regulations, permits, and maintenance costs. The use of cadavers is common in preparing students for entry into the professional world of western medicine, but global access to cadavers is hindered by social, religious, and legal implications. The Anatomage Table was created to address the issues related to the use of cadavers in anatomy education. The Anatomage Table is a virtual dissection table designed to show all real patient data in a 1:1 life size scale. The Table has both male and female gross anatomy. The male and female cadavers have over 2,500 segmented and annotated structures. The Table contains high resolution data sets of regional anatomy, and the Anatomage library contains a wide array of pathology cases that range from medical device demonstrations to rare and unique cases. The Table can import files in the DICOM standard by compiling 2D slices into a 3D rendering that has applications ranging from assisting in diagnosis to building a library for educational training. The Table requires no maintenance, no chemicals, no regulations, no special storage, and it has a minimal amount of recurring costs. The Anatomage Table offers a solution to the limitations of cadavers and provides a novel experience that lets users gain a more comprehensive understanding of anatomy.

## ABOUT ANATOMAGE

For over 13 years, Anatomage has been a leading medical device company driving innovation in the healthcare industry. Anatomage's advanced solutions are being used in tens of thousands of clinics, hospitals, and other institutions in the US and internationally. Our products include medical tables, image-guided surgical devices, surgical instruments, radiology software, and imaging equipment.

Anatomage products are developed, designed, and manufactured following strict FDA guidelines for medical devices. Anatomage continues to establish exclusive partnerships with renowned educational institutions and medical equipment companies. Our cutting-edge and unique products have been featured numerous times in journals, publications, and the media, including: TED Talks, BBC, CBC, Japanese Fuji TV, and PBS.

Located at the heart of Silicon Valley, Anatomage is a fast-growing company that continues to thrive in a place where technology is ingrained in the culture. The company encourages the building of a diverse and positive culture and recruits top talent. Anatomage's work environment is defined by our highly talented biologists, medical specialists, and engineers who strive to create high-tech products that continue to push industry standards. Anatomage maintains strong ties with world-leading instructors and researchers by building successful partnerships at prominent institutions.

With our revolutionary family of products, we aspire to advance medical education and improve patient care throughout the healthcare industry.

*Anatomage*

## WORLDWIDE INNOVATION

### ANATOMAGE COMMUNITY

When you purchase an Anatomage Table you not only get all the high quality contents developed by Anatomage, but you are also part of a global community of educators and researchers who have already spent time developing their own content and ideas on how best to incorporate the Table into a wide range of curricula and disciplines.

With hundreds of Tables sold worldwide, Table users can enjoy informative annual users group meetings and developmental programs on an international scale to help ensure that the Table meets their needs. Anatomage is committed to cutting edge technology supported by an excellent team with the drive to ensure that the Table is not just a product, but rather a community of users.



### INTERNATIONAL DISTRIBUTION

The Anatomage Table is used globally. Headquartered in California, Anatomage has offices in Italy and Korea to better serve our customers abroad. We have an extensive network of international distributors, a list of which can be found on our website, to offer timely service and support. Sales to countries where we have not found a representative that meets our standards are handled directly by us—we provide shipping, training, and support.

### FORUM & SUPPORT

Members of the Anatomage Table community can connect with each other and our team through the Anatomage Table Forum. The forum is a place for members of the community to discuss the Table and have questions answered by our Table team. The team actively monitors the forum and provides support to all users. The forum is also updated with new content about the Table. You can visit the forum at [anatomagetable.com](http://anatomagetable.com).

### COMPLETE EDUCATIONAL PLATFORM

The Anatomage Table's powerful content creation tools and demonstration capabilities gives users a complete platform for medical education. Numerous institutions such as medical universities, undergraduate programs, and school districts use the Table as a complete lab alternative. The Table serves as a valuable tool for clinical planning and patient consultation.

Clinicians and medical students can accurately visualize internal and surface anatomy in 3D for clinical training. The Table's ability to import scans and integrate with PACS allows for clinicians to work with patient data and learn from real clinical scenarios. Additionally, patients can be effectively informed of their condition with a 3D visual consultation on the Table.



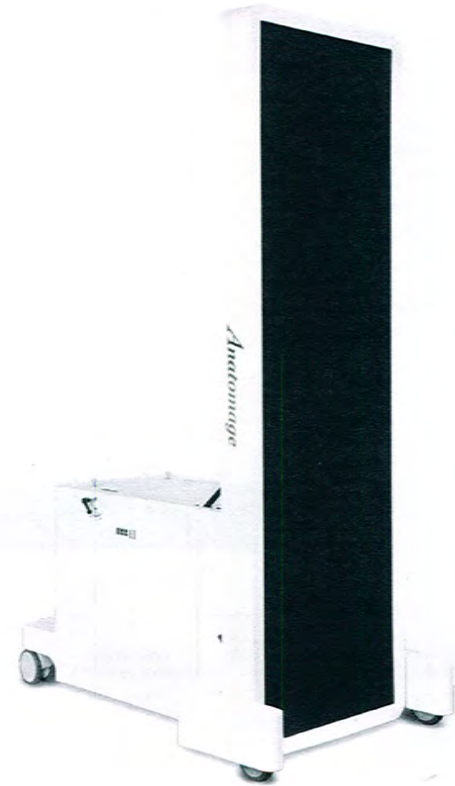


# HARDWARE SPECIFICATIONS



## Classic

Product Dimensions	Length: 87" (221 cm) Height: 33" (83 cm) Width: 28" (71 cm)
Weight	300 lbs (136 kg)
Display Size	84" (213 cm)
Power Supply	AC 100-250V, 50/60 Hz, 10A
Network	RJ45



## Convertible

Product Dimensions	Length: 85" (216 cm)	Length: 55" (140 cm)
	Height: 33.5" (85 cm)	Height: 86" (218 cm)
	Width: 34" (87 cm)	Width: 34" (87 cm)
Weight	400 lbs (182 kg)	
Display Size	84" (213 cm)	
Power Supply	AC 110-250 V, 50/60 Hz, 10A	
Network	RJ45	

# Anatmage

designed to emphasize a different part of the scan. The original slice data from which the 3D rendering is composed, is always accessible on the Table.

Every Table comes with a complimentary copy of the Anatmage Invivo software to install on a separate computer. DICOM files can be uploaded directly into the Invivo software to create custom annotations, models, videos, and simulations. All of the custom material that can be created in the separate software is compatible with the Table. Furthermore, the 3D Images can be exported out to a 3D printer to create physical models from a scan.

## 4.3 A Limitless Digital Library

The Anatmage Table is equipped with 3D high resolution regional anatomy for visualization of localized areas in a higher resolution. These regional scans contain highly detailed areas for up-close real tissue examination. The Table's digital library contains an expansive array of pathological cases, as well as radiology reports.

The digital library contains a large array of pathology examples organized by their location within the body. Comparative analysis cases, medical device demonstrations, animal scans, 4D examples, rare and otherwise inaccessible pathology cases are easily viewable and ready for dissection with the Anatmage Table. The Library contains full body cat and dog cadavers obtained through 0.2 mm axial slice photographs showing all real patient tissue that is true to color. Institutions can also build their own library of case studies to create a unique curriculum to fill their own educational needs.

The Anatmage Curriculum contains regionally specific anatomy education examples. The curriculum uses examples from the Anatmage Digital Library and walks through a specific area in a predetermined path. The curriculum has the proper renderings, cuts and rotations to automatically highlight specific anatomical features.

## 5.1 Advantages in Education

To aid in anatomy education the Anatmage Table contains virtual cadavers, the Anatmage library, and the Anatmage Curriculum. The Anatmage Table's virtual cadavers address the limitations of cadavers by providing a unique experience for students to gain an appreciation of anatomical relationships throughout the body. The Anatmage Table's form factor resembles that of a cadaver dissection table, enabling visualization of all real patient data in a life-size scale. In comparison to the localized viewing regions of a cadaver, the Anatmage Table enables a full 3D view of tissue, veins, organs, and anatomical systems. With the Table any anatomical system can be easily viewed separately or in relation to any other system.

The integration of radiology into any curriculum has never been easier than with the Anatmage Table. The original scan data from any DICOM file uploaded to the Table, including those in the Anatmage Library, can be easily accessed. Instructors can assign students a scan for them to study, and teach pathology with the 3D rendering and original scan data simultaneously. By gaining early exposure to clinical images, students become more acclimated to understanding the value and purpose of CT imaging in patient diagnosis.

The Anatmage Curriculum contains region specific scans of real tissue that have been outlined and sectioned to give instructors the tools to immediately implement the Table into their own curriculum. The Curriculum takes examples from the Anatmage library with the proper rendering to highlight target structures for each region. Anatmage has created a separate PDF file containing information on each structure and overall region. The Curriculum was designed to give time back to teachers and lower the amount of prep-work needed for anatomy lab.

The combination of virtual cadavers, the Anatmage Library and the Anatmage Curriculum, will aid instructors in generating material that can be used for homework, quizzes, study guides, and presentations.

# Anatomage

Annotated images can be taken and distributed for students to use as study guides. Images and videos can be taken from the Table and used in presentations.

## 5.2 Application of the Anatomage Table

The Anatomage Table contains a number of features beyond the content that make its integration not only easy, but reliable. The Table has two external media ports that can be directly connected to a projector or external monitors. The Table also has a RJ45 ethernet port that can be connected to a network and then can be screen shared from a computer to other computers in the room. The Table is on casters, so it can be maneuvered wherever needed.

The Anatomage Table can upload any file in the DICOM file standard. Once a scan from an MRI or CT machine is exported, the file can be uploaded into the Table in a couple different methods. Files can be directly loaded from external hard drives via USB port found on the Table's hardware or through a network connection from another computer. The software quickly and automatically converts the 2D slices into 3D models on the Table.

The Anatomage Table was cleared by the FDA for "radiologists, clinicians, referring physicians and other qualified individuals to retrieve, process, render, review, and assist in diagnosis"<sup>18</sup>. The Table enables doctors to quickly analyze a patient's scan in 3D with multiple renderings to further highlight specific tissue for accurate diagnosis. Surgeries can be planned out and post operation analysis can be reviewed on the Table. Furthermore, the Table can store medical cases for review in the future.

For students, teachers, medical doctors, surgeons, radiologists, forensic scientists, and veterinarians, uploading personal CT and MRI data can enable the creation of a profession-specific case library to be used for education and training in the field. Summarized in **Table 2** are applications of the Anatomage Table to qualified professionals working in various medical fields.

**Table 2**

<b>Education</b>	<i>Virtual Cadaver</i>	<ul style="list-style-type: none"> <li>- Classroom and Lab Integration</li> <li>-3D gross anatomy male and female contents</li> <li>-3D high resolution regional anatomy</li> </ul>
	<i>Library</i>	<ul style="list-style-type: none"> <li>- Contains over 600 pathology cases</li> <li>- Access to comparative cases, rare pathology and medical device cases</li> <li>- Anatomage Anatomy Curriculum</li> </ul>
	<i>Radiology Training</i>	<ul style="list-style-type: none"> <li>- DICOM file can access original scan data</li> <li>- 3D images can be juxtaposed onto the slice data</li> <li>- Patient cases have radiology reports</li> </ul>
<b>Clinical Application</b>	<i>MD's and Surgeons</i>	<ul style="list-style-type: none"> <li>- Diagnostic tool</li> <li>- Pre/post operation Planning</li> <li>- Comparative Analysis (Multi-Scan Viewing)</li> <li>- Medical and Surgical Device Demonstration</li> <li>- Digital library of case studies</li> </ul>
	<i>Forensics</i>	<ul style="list-style-type: none"> <li>- Virtual Autopsies</li> <li>- Remote bodies can be scanned and sent to medical centers</li> <li>- Multiple teams can conduct investigations simultaneously</li> <li>- All cases can be saved on to Table</li> </ul>

# Anatomage



Veterinary

- Life-Size Interactivity with animal scans
- Digital library contains real tissue data of a full body cat and dog
- Custom veterinary case library

## 6. Testimonials and Educational Evidence

"That is the biggest challenge in anatomy when all you have are two dimensional images. I remember as a student how difficult it was to understand the perspective of a coronal, sagittal, transverse or oblique section. That isn't the case anymore. And, they will have no problem using this table, because it was built for them--digital natives, I think they call this generation. It's simply a giant iPad, and they're going to love it. I wish I had had an instrument like this to study from when I was in college; I could have learned so much better and faster." - Marla Garrison (Biology Instructor) McHenry County College <sup>19</sup>

"...they get the opportunity to, essentially, perform electronic dissection and if they do decide to look for an organ or a structure and they make a mistake, they can just start from the beginning and work through again... So it gives the student the opportunity to challenge their understanding and if they don't quite get it right the first time, it's no problem." - Dr. Carmel Toms (Anatomy Demonstrator) University of Birmingham <sup>20</sup>

"...the table gives students a sharper tool with which to practice identifying particular body systems and how they are affected by disease. The idea is to prepare medical professionals more thoroughly and more quickly than before." - Tanya Custer (Assistant Professor) University of Nebraska Medical Center <sup>21</sup>

"Users can also upload their own patient data, for example from MRI or CT scans, to showcase to students real patient anatomy in a life-size scale. The Anatomage Table may also be used for clinical and residency training in the future." - Dermot Kelleher (Dean Professor) Lee Kong Chian School of Medicine <sup>22</sup>

"The ability to view a large variety of CT and MRI scans is unique and infinitely useful...anatomy courses including identification of structures seen in cross sectional anatomy, x-ray, CT or MRI slice data, pathologies or abnormalities, anatomical variations, fractures, or cardiovascular conditions or diseases will find the Table an excellent method to both instruct and test students in these regards."  
-- W. Paul Brown DDS,FICD,FACD Stanford University, Division of Clinical Anatomy <sup>23</sup>

## 7. Conclusions

The Anatomage Table is a solution to reducing cadaver lab sizes, cost, and time spent on maintenance. The Table requires minimal maintenance, no chemicals, no regulations, no special storage, and low recurring costs. As the number of medical students increases across the nation, medical schools must expand their program to accommodate the influx. The Table requires no regulations, so it can give back valuable time to staff by allowing students access without direct supervision outside of the lab. The Table presents a new option for schools to offset the hefty costs of a traditional cadaver lab by adding an educational tool that creates a new depth to student comprehension of anatomy.

The Anatomage Table can be applied to any institution with an interest in anatomy education. The Anatomage Table can be integrated into programs that are just starting, looking to expand, or interested in downsizing the lab all by reducing costs associated with lab equipment and time spent on maintenance. By reducing the size of a cadaver lab, the Table will save money by decreasing costs associated with storage, recurring materials, electricity, maintenance, and staff.

# Anatomage

The Anatomage Table is a fully inclusive educational tool. To anatomy education, the Table provides virtual cadavers, the Anatomage library, and the Anatomage Curriculum. To qualified professionals, the Table provides a tool to assist in diagnosis and aid in both professional collaboration and patient consultation.

## 8. Appendix A

### Initial startup costs of supplies for a cadaver lab <sup>8,9</sup>

Item	Quantity per cadaver	Per Unit Cost (\$)	Total for 2 Cadavers (\$)	Total for 5 Cadavers (\$)	Total for 7 Cadavers (\$)	Total for 14 Cadavers (\$)
lab coats	5	20	200	500	700	1400
protective eye wear	5	5	50	125	175	350
dissecting visors	2	15	60	150	210	420
specimen scrap buckets	2	22	88	220	308	616
removed organ specimen containers	5	5	50	125	175	350
wetting solution containers	1	200	400	1,000	1,400	2,800
body bags for cadaver tables	1	30	60	150	210	420
storage tubs	1	370	740	1,700	2,440	4,880
bone saw		100	100	100	100	100
dissection instruments		250	250	250	250	250
humidor	1	2,000	4,000	10,000	14,000	28,000
dissection table	1	5,000	10,000	25,000	35,000	70,000
self-ventilating dissection table	1	16,000	32,000	80,000	112,000	224,000
Total w/ normal dissection table	N/A	N/A	15,998	39,320	54,968	109,586
Total w/ (sv) dissection table	N/A	N/A	37,998	94,320	131,968	263,586

Appendix A displays costs of items associated with the addition of cadavers to a program. The varying amounts of cadavers displayed in Appendix A were based on a medical school that uses 14 cadavers each year: 7 in gross anatomy, 5 for PhD candidates and 2 for basic human anatomy<sup>7</sup>.

## Appendix B

### Annual recurring costs <sup>8,9</sup>

Item	Quantity for 1 cadaver	Per Unit Cost (\$)	Total for 2 Cadavers (\$)	Total for 5 Cadavers (\$)	Total for 7 Cadavers (\$)	Total for 14 Cadavers (\$)
Lab Coat Cleaning	5 coats - 4x /year	4	160	400	560	1,220
Hand Cleanser	1	10	20	50	70	140
Surface Cleanser	1	5	10	25	35	70
Examination Gloves	1000	0.09	180	450	630	1,260
Formaldehyde badge monitoring	12	4	96	240	336	672
phenoxyethanol	2 L	75	150	375	525	1,050
glycerol	0.5 L	25	50	125	175	350
EDTA	25 g	2.5	5	12.5	17.5	35
Formalin	1 L	15	30	75	105	210
Fees from WBP*	1	2,500	5,000	12,500	17,500	35,000

Total	N/A	N/A	5,701	14,252.5	19,953.5	39,907
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The recurring costs presented in Appendix B display the costs associated with materials that are required for a year's worth of use from a cadaver lab.

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**From:** [Haney, Brenda](#)  
**To:** [Shewmaker, Nicholas](#)  
**Cc:** [Mitchiner, Brandi](#)  
**Subject:** FW: Please Advise/ Action Required\_ OLR#\_0001011349\_ANATOMAGE\_ Comparative Quotes ?  
**Date:** Friday, April 13, 2018 11:25:28 AM  
**Attachments:** [OLR#\\_0001011349\\_ANATOMAGE.PDF](#)  
**Importance:** High

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**Nick** - Please review the additional Sole Source pages added to this OLR#\_0001011349 for ANATOMAGE pdf and highlighted info below – and advise if you need anything further to proceed with Purchase Order.

**Brandi** – yes please have the Area Dean sign off on the SSPJ page and the Justification Memo –  
Note: I have added the info highlighted below to this memo. Appreciate the quick reply !

Thank you,

*Brenda Haney*

Business Services

Folsom Lake College | 10 College Parkway | Folsom, CA 95630

☎ 916.608.6635 | ✉ [haneyb@flc.losrios.edu](mailto:haneyb@flc.losrios.edu)

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**From:** Mitchiner, Brandi

**Sent:** Friday, April 13, 2018 10:51 AM

**To:** Haney, Brenda <[haneyb@flc.losrios.edu](mailto:haneyb@flc.losrios.edu)>

**Subject:** RE: Please Advise/ Action Required\_ OLR#\_0001011349\_ANATOMAGE\_ Comparative Quotes ?

Happy Friday Brenda,

We did not obtain comparative quotes for this equipment because there are no other similar products on the market. I have completed the Sole Source Purchase Justification documents and have attached them to this email. I will also send the hardcopies to you. I was able to reach out to the vendor for a summary memo of specialized functions of the Anatomage table. Does this need to be signed by area faculty and the dean?

The anatomy table we are ordering from Anatomage is being purchased for Imaging CTE program. Our MRI, Computed Tomography, and Interventional Radiography certificate programs will have primary use of the table, installed in Cypress Hall Room 234, but will also be available to FLC's Biology department.

Please let me know if there is any additional information that you need from me to remove the hold on this order.

Kindly,

**Brandi Mitchiner**

CTE Grant Coordination Clerk

Folsom Lake College



(916) 608-6924 | [MitchiB@flc.losrios.edu](mailto:MitchiB@flc.losrios.edu)

**Top 5 Strengths:** Deliberative, Intellection, Connectedness, Relator, Futuristic

---

**From:** Haney, Brenda

**Sent:** Friday, April 13, 2018 10:01 AM

**To:** Mitchiner, Brandi <[MitchiB@flc.losrios.edu](mailto:MitchiB@flc.losrios.edu)>

**Cc:** Shewmaker, Nicholas <[shewman@crc.losrios.edu](mailto:shewman@crc.losrios.edu)>

**Subject:** Please Advise/ Action Required\_ OLR#\_0001011349\_ANATOMAGE\_ Comparative Quotes ?

**Importance:** High

Hi Brandi –

Happy Friday, hope you're doing well !

District Purchasing has placed the attached OLR#\_0001011349\_ANATOMAGE for 3D Anatomy Table on hold, pending action of the following items:

Please advise if comparative quotes were obtained for this equipment (3D Anatomy Table) ?

- If Yes – please email additional quotes to me with Cc. Nick Shewmaker.
- 
- If No - please obtain two additional comparative quotes for like merchandise –

**OR**

- Provide further explanation, as to why comparative quotes were or cannot be obtained for this or like equipment.

**AND**

- Complete attached Sole Source Purchase Justification packet (SSPJ Form & Conflict of Interest Statement) –
  - Specifically Item #s – 1, 3, 4 and/or 8 – with written/memo of justification from requesting Area Faculty and Dean.

- Also – please identify the Department/Instructional Program this equipment is for , and confirm if it will be installed in Cypress Hall Room 234, (if not where will this equipment actually be installed and used)?

Please let me know if you need any assistance with these action steps.

Thank you,

*Brenda Haney*

Business Services

Folsom Lake College | 10 College Parkway | Folsom, CA 95630

☎ 916.608.6635 | ✉ [haneyb@flc.losrios.edu](mailto:haneyb@flc.losrios.edu)

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**From:** Shewmaker, Nicholas

**Sent:** Friday, April 13, 2018 8:47 AM

**To:** Haney, Brenda <[haneyb@flc.losrios.edu](mailto:haneyb@flc.losrios.edu)>

**Subject:** REQ# 1011349 Anatomage

Hi Brenda,

Can you see if this other quotes were obtained for this or if sole source paperwork should be filled out?

Thanks,

Nick Shewmaker

Buyer III

Los Rios Community College District, 1919 Spanos Ct., Sacramento, CA 95825

Phone: 916-568-3072 Fax: 916-568-3145